

SURVEY RESULTS OF KNOWLEDGE SHARING PREFERENCES AND PRACTICES IN PUBLIC HEALTH COMMUNICATION PROFESSIONALS IN THAILAND'S DEPARTMENT OF DISEASE CONTROL: A DESCRIPTIVE STUDY

Achara Bunchum¹, Ornjaree Na Taguatung², Suchitra Sukonthasab¹,
Smith Boonchutima^{3,*}

¹ Faculty of Sports Science, Chulalongkorn University, Bangkok, 10330, Thailand

² Faculty of Education, Chulalongkorn University, Bangkok, 10330, Thailand

³ Faculty of Communication Arts, Chulalongkorn University, Bangkok, 10330, Thailand

ABSTRACT:

Background: Knowledge sharing is a well-established field of research with an increasing popularity in Thailand. All government offices are now required to hold knowledge management activities to manage their body of knowledge. This will ensure that officers are allowed to learn from each other and constantly develop better work practices. However, difficulties faced by organizations including, limited budgets, scattered and preoccupied personnel, and fast changing computer and information technology, especially social media, mean that the process of knowledge sharing should be carefully designed before implementation. This will help prevent the knowledge sharing project being seen as a waste of time and effort.

Methods: A survey was conducted to measure the current preferences, practices, needs, and obstacles regarding internal knowledge sharing among the government officers, in addition to identifying a suitable platform that best suits these criteria. One hundred and eleven public health officers were selected as questionnaire respondents due to their position and responsibility for health communication for the Department of Disease Control throughout Thailand. The topic of diabetes prevention communication was purposively chosen owing to the high prevalence and low risk perception of diabetes among the Thai population.

Results: Responses show a clear preference for using Facebook as an encouraging, effective, and familiar platform for information exchange. In addition to the social networking aspect, respondents expressed a desire to include mentors and health communicators with different levels of experience in their discussion groups. Further offline components are also indicated as useful and preferred modes of communication, including physical meetings and study trips, where health communication practitioners could meet and discuss with those who excel at communication practices regarding public health information. Lectures and workshops were selected and seen as necessary to orientate group members on the process of knowledge selection, whereby participants select topics for discussion, and knowledge sharing.

Conclusions: The goal, practice, and effectiveness of knowledge sharing in Thailand is generally accepted among government public health officers. Initial practitioner unfamiliarity, skepticism, and discomfort can be overcome if the appropriate components and procedures are utilized. This survey's results can be taken into consideration by knowledge managers for the development of a knowledge sharing model.

Keywords: Communication, Facebook, Knowledge sharing, Knowledge management

DOI:

Received: November 2014; Accepted: March 2015

INTRODUCTION

Thailand's administrative bureaucracy has

determined that all organizations need an organizational culture that encourages continual learning, knowledge and skills development, and fosters an attitude of efficient collaborative learning. Every Thai government organization is accordingly

* Correspondence to: Smith Boonchutima
E-mail: Smith.b@chula.ac.th

Cite this article as:

Bunchum A, Na Taguatung O, Sukonthasab S, Boonchutima S. Survey results of knowledge sharing preferences and practices in public health communication professionals in Thailand's Department of Disease Control: a descriptive study. *J Health Res.* 2015; 29(5): 395-401. DOI:

required to organize a knowledge management project [1]. This policy establishes an essential role for Knowledge Management in Thai civil institutions [1]. Knowledge Management is seen as an aid to furthering the mission of each Government office, including the Ministry of Public Health. The Department of Disease Control, within the Ministry of Public Health is tasked with communication for prevention and control of the risk factors that cause communicable and non-communicable diseases, and other health hazards to the general public of Thailand.

A 2009 survey revealed that 1 in 3 persons with diabetes were unaware of their condition at the time of the survey. In addition, 3.3% of diabetes patients in Thailand do not currently seek treatment even with available public healthcare. Half of diabetes patients who receive treatment are still unable to control their blood sugar level. As such, diabetes prevention and control is a top priority for the Thai government, but effective communication techniques are currently lacking [2]. Along with inadequate external communication with the Thai public, there is an insufficient degree of internal communication within the Department itself. While many offices of the Department of Disease Control have been exploring ways to better disseminate diabetes information to people at risk, some parts of the organization have in fact already implemented efficacious techniques and communication strategies such as social marketing, use of innovative technologies, community outreach, among others. Some of these initiatives have even garnered "Best Practice" recognition. However, the current knowledge sharing mechanisms within the Department have not allowed for the sharing and adoption of these best practices. The current situation obviates the need for greater internal communication and internal knowledge sharing that can provide an official organizational platform for fellow professionals to learn from these distinguished health communicators. Knowledge sharing activities could provide individuals within the group the means to officially transfer and share knowledge, experiences, methods, and techniques with colleagues.

Knowledge Management is a larger process with knowledge sharing as one component. Knowledge sharing is an intentional act in a relationship whereby the one who possesses knowledge shares it with the one who acquires it. There is an organizational component as well, where knowledge sharing allows knowledge that resides with an individual to be made available to the larger organization. The content of knowledge sharing involves both explicit forms such

as texts and tacit forms that range from opinion, experience, perspective and untapped information [3].

Knowledge sharing comes in many traditional forms, including; coaching, seminars, and other forms of face to face meeting [4]. Although organizations are encouraging knowledge sharing [5], difficulties arise in the design and implementation of a knowledge sharing platform owing to individual's motivation, comfort-level, and aptitude, among other issues. Motivations and the types of incentives for member's participation in knowledge sharing differ depending on various factors [6]. An individual's behavioral intention toward knowledge sharing is influenced by the individual's attitude towards knowledge sharing, social norms within the organization, and motivation by management to promote group interactions and communications [7]. Knowledge sharing through social media adds further levels of consideration, including technology adoption and virtual community. Technology adoption is most highly dependent on ease of use, while virtual communities are the result of similar interests, goals, and ideas among members [7, 8]. Still, with the ever increasing popularity of the internet, Social Networks and virtual communities are being increasingly studied for knowledge sharing potential [7].

Due to the government mandate and the many potential benefits of a departmental knowledge sharing project, the researcher was interested in studying knowledge sharing and communication of diabetes prevention and control. The survey objective was to study the current preferences, practices, needs, and obstacles of knowledge sharing for public health officers responsible for communication at the Department of Disease Control, Ministry of Public Health. The positive outcomes for public health are many. With a successful program of diabetes prevention, it may be possible to mitigate the risk factors of other associated chronic diseases such as hypertension, cardiovascular disease, and paralysis [9]. The findings from this research could be a guideline for developing an appropriate knowledge sharing model to optimize internal communication amongst government officials responsible for public health communication, with the ultimate goal being to prevent and control diabetes and other diseases as well.

METHOD

Research consisted of a mailed survey with data collected from the total population of 111 participants including 41 male (36.9%) and 70 female (63.1%).

Table 1 Problems with knowledge sharing

Problems with knowledge sharing	Frequency	%
Individual		
No motivation	36	32.4
Lack of trust	20	18.0
Forced participation	28	25.2
No confidence in member's expertise	24	21.6
No sense of belonging	28	25.2
Unwilling to disclose information	41	36.9
Communication collaboration inconvenience	45	40.5
Technology		
Outdated, and unreliable information on web site	25	22.5
Information overload due to email	32	28.8
Lack of familiarity with new technology	60	54.1
Knowledge sharing		
Tendency to share irrelevant things when using online forum	43	38.7
Tendency to share irrelevant things	48	43.2

Note: Results in percentage terms indicate that more than one response could be selected by individual survey respondents

Survey participants included professionals from the Thai government Department of Disease Control, Ministry of Public Health. Each respondent's job duties include health communication. The response rate of 100% was assured as responding to the survey by regional managers was required by senior management. The mailed survey was a viable option as the participants were located throughout Thailand, and the participants' mailing addresses were available. The participants' diabetes mellitus knowledge was assumed to be above average compared to the general population of Thais, as they were public health professionals. Participants were given the option to select more than one response from the given set. The quantitative data was analyzed both by frequency and percentage. The data was compiled into tables reflecting the frequency of responses for each selection, then the total number of responses for each selection was divided by total participants to determine the overall percentage.

The questionnaire was designed with two primary objectives in mind. A review of literature, both international and Thai sources, on knowledge management [1, 10-14] generated questions intended to measure the current preferences, practices, needs, and obstacles for participants concerning knowledge management and knowledge sharing. A second objective concerned online media use, with questions adapted from the Technology Acceptance Model proposed by Davis [15] in order to measure the respondents' perception of online media usefulness and ease of use, which ultimately could shed light on which online application the respondents prefer.

The questionnaire was composed of 18 items in

total. Questions collected information about the respondents' personal profile, problems of knowledge sharing, preferred knowledge sharing activities, online application and group composition.

Due to an interdisciplinary nature of the study, five specialists in the field of knowledge management (2 people), communication (2 people), and online media (1 person) were asked to assess the questionnaires' content validity. The experts determined that all items correspond to objectives. The indexes of item objective congruence of all items were consequently calculated as 1, meaning that all items passed the criteria established by Rovinelli and Hambleton [16].

ETHICAL CONSIDERATION

Ethical approval was obtained from the Ethics Review Committee for Research Involving Human Research Subjects, Chulalongkorn University (COA no.466/2555).

RESULTS

Results in percentage terms indicated that more than one response could be selected by individual survey respondents. The results revealed that the common problems of knowledge sharing are as follows: communication collaboration inconvenience (40.5%, n = 45), lack of familiarity with new technology (54.1%, n = 60), and the tendency to share irrelevant information (43.2%, n = 48), Table 1. Results for knowledge sharing activities and preferences are that those public health officers preferring to join a physical meeting and a study trip to meet with those who have best practices to share (30.6%, n = 34), those interested to attend a lecture and workshop (29.7%, n = 33), and those

Table 2 Preferred knowledge sharing activities, online application, and group composition

Items	Frequency	%
Preferred knowledge sharing activities		
Documentation of knowledge and practices	20	18.0
Story telling	21	18.9
Database	26	23.4
Cross-group learning	10	9.0
Innovation sharing	8	7.2
Community of practice	15	13.5
Mentoring	30	27.0
Exchange of work	11	9.9
Face to face meeting and study trip	34	30.6
Writing and posting on weblog	22	19.8
Writing and posting on journal or newsletter	14	12.6
Participating in discussion during workshop	24	21.6
Forwarding useful information	23	20.7
Participating in online discussion	21	18.9
Attending lectures and workshops	33	29.7
Preferred online application		
Web board	22	19.8
Chat	21	18.9
Facebook	59	53.2
Twitter	7	6.3
Hi5	6	5.4
Videoconference	21	18.9
E-mail	22	19.8
Preferred group composition		
All are experienced health communicators	18	16.2
All are inexperienced health communicators	7	6.3
Mixed (experienced and inexperienced), and mentor	62	55.9

Note: Results in percentage terms indicate that more than one response could be selected by individual survey responder

wanting to receive assistance from mentors (27.0%, n = 30). Online usage preferences indicated a majority of respondent's inclination to Facebook as the optimal platform to exchange opinion (53.2 %, n = 59). They also would like to include mentors and health communicators with different levels of experience in their discussion groups (55.9%, n=62), Table 2.

DISCUSSION

Until present, most Thai government organizations, limited by budget constraints, have generally encouraged personnel to perform internal knowledge sharing using an in-house training technique. Therefore, we found that most participants currently shared knowledge informally amongst colleagues through casual conversation and forwarding useful information among their favorite colleagues. This current state of knowledge sharing depends solely on individuals and their personal or professional relationships with a potential knowledge sharer. Without proper management, this might not be a sustainable approach for any organization [17].

As knowledge sharing was only recently

introduced in Thailand, and as training efforts have been minimal, the respondents expectedly lacked confidence as they felt they did not understand how to appropriately or efficiently share knowledge within the organization, and that the new technology involved in knowledge sharing might be overly complicated for them. A feeling of intimidation or lack of familiarity with new technology should not be surprising given the current pace of technological evolution.

Sharing irrelevant information in online forums during the knowledge selection process and a tendency to share irrelevant things in face to face communication were major concerns because they can lead to wasted time and unaccomplished goals. This could be a common problem when goals were not pre-determined and agreement was not reached within the team [18].

The activities and tools most preferred were a physical meeting and study trip. This was because the respondents would like a corporate-retreat style break from the ordinary working environment where they could learn new skills [19]. Those two activities were highly interactive and likely to be effective in changing knowledge, attitude, and behavior [20].

This could widen the participant's perspective and establish a working network, which was essential for the health communication professionals [21].

A majority of participants also voted for mentoring. This might be because the health communication professionals who had less experience in knowledge sharing and prevention and control of diabetes were more comfortable given oversight, guidance, and feedback during activities. Mentors can fill their role through any number of means, including online or face to face communication. Having an accessible mentor in their team could engender confidence and increase performance [6].

Participants also preferred to form groups consisting of highly accomplished, expert, health communication professionals along with other managers of varying levels of experience. We believe that most participants favor working groups with a mix of managers and decorated health communication professionals because they offer the best opportunities to learn best practices [22].

Facebook was the most preferred platform for online communication due to user's familiarity and ease of use [23]. In fact, Facebook overcame respondents stated concern with unfamiliar technology precisely because it is already familiar to many users. Facebook is well established and often used in Thailand. 18 million out of a total population of 64 million Thais are frequent Facebook users [24]. The participant's familiarity with the features and interface of Facebook could provide a medium for further online knowledge sharing. Facebook can also serve as an avenue of data collection to provide data for weblogs that can serve as an accessible database as preferred by some respondents.

Certain recommendations arise from this survey for further consideration and study. A combination of online communication including Facebook and weblogs, an added Mentor, and a knowledge sharing community based on mixed experiences could provide a significant contribution to the knowledge sharing practice due to an increase in group communication and collaboration that is convenient and inexpensive [7, 23, 25]. One potential drawback with Facebook could be in the way it organizes and presents information through 'posts'. As group members contribute additional information in the form of Facebook posts, older posts are arranged chronologically towards the bottom of the interface (timeline); requiring users to scroll down through marked or tagged items to browse all information. As seen in findings from previous research [26], weblogs provide a more convenient way to

categorize and retrieve information.

It is also recommended that off-line activities remain a component of knowledge sharing. This could be in the form ongoing working groups, or even off-site lectures and activities for employees of an organization. It would be essential for Mentor's to play a vital role in the physical meetings as they would need to create a conducive atmosphere for sharing and learning. As such, informal activities would be more helpful than more traditional, formal seminars [27].

We would also suggest that the success of any program of knowledge sharing is dependent on the level of support within an organization [27]. It is recommended that the knowledge manager should start by emphasizing the 3 key principles: compassionate teambuilding [6], mutual goal setting [18], and a commitment to lifelong learning [28]. It is important to care about building trust and relationships among participants as well as the knowledge manager during offline and online interactions [29-31].

Our descriptive study presents the findings from a selected group of health professionals in Thailand, and the expressed preferences, practices, needs, and obstacles for participants concerning knowledge management and knowledge sharing may not be applicable to other populations. We recommend that further research is needed to characterize attitudes and practices regarding knowledge sharing in alternate populations.

LIMITATION

External knowledge sharing between the government officers and those frontline workers involved with diabetes like patients and care-takers is not within the scope of this survey. This topic can be further explored in future research. Lack of qualitative data like interviews or focus groups leaves a potential gap in understanding the reasons for each response. Analysis of responses was not associated with personal information of the respondents so there is no correlation data by gender, age, income, or other categories.

CONCLUSION

This paper is meant to analyze survey responses and identify current preferences, practices, needs, and obstacles with knowledge sharing among Thai government officials responsible for public health communication. It was found that contemporary practices of knowledge sharing should be comprised of both online and offline components for working groups. Facebook should serve as a familiar online platform that can be incorporated into work-related

knowledge sharing. Traditional offline knowledge sharing activities such as lectures, workshops and study trips also play an important role within the process of knowledge sharing. Working groups should include a mentor to instill confidence in group members and provide clarification and context to the process of knowledge sharing.

RECOMMENDATION

The findings can be important input for developing a knowledge sharing activity tailored for this group. The future research can be done in other groups like patients and care-takers, and using mixed methods for better understandings.

ACKNOWLEDGEMENTS

We would like to thank Bryan Funk for his assistance with the English writing, and the public health professionals for completing the questionnaires.

REFERENCES

- Office of the Public Sector Development Commission [OPDC] and Thailand Productivity Institute. Handbook of knowledge sharing activities design. Nonthaburi: Office of the Public Sector Development Commission (OPDC) and Thailand Productivity Institute; 2005. [Cited 2014 Oct]. Available from: http://www.sc.psu.ac.th/units/sckm/document/3manual_activity.pdf.
- Institute of Medical Research and Technology Assessment. Fact sheet: diabetes, hypertension, and their complications; the current situation in Thailand. Nonthaburi: Institute of Medical Research and Technology Assessment; 2013. [Cited 2014 Oct]. Available from: http://www.dms.moph.go.th/imrta/images/data/doc_dm_ht.pdf.
- Ipe M. Knowledge sharing in organizations: a conceptual framework. *Human Resource Development Review*. 2003; 2(4): 337-59.
- Health Systems Research Institute, Thailand. Knowledge management to wisdom hallmarks. Nonthaburi: Thunkamol Press; 2004.
- McAndrew P, Clow D, Taylor J, Aczel J. The evolutionary design of a knowledge network to support knowledge management and sharing for lifelong learning. *British Journal of Educational Technology*. 2004; 35(6): 739-46.
- Boer N-I, Berends H, van Baalen P. Relational models for knowledge sharing behavior. *European Management Journal*. 2011; 29(2): 85-97.
- Pi S-M, Chou C-H, Liao H-L. A study of Facebook Groups members' knowledge sharing. *Computers in Human Behavior*. 2013; 29(5): 1971-9.
- Arteaga Sánchez R, Cortijo V, Javed U. Students' perceptions of Facebook for academic purposes. *Computers & Education*. 2014; 70(0): 138-49.
- Aekplakorn W, Chariyalertsak S, Kessomboon P, Sangthong R, Inthawong R, Putwatana P, et al. Prevalence and management of diabetes and metabolic risk factors in Thai adults: the Thai National Health Examination Survey IV, 2009. *Diabetes Care*. 2011; 34(9): 1980-5.
- Nonaka I. The knowledge-creating company. *Harvard Business Review*. 1991; 69(6): 96-104.
- Nonaka I, Takeuchi H. The knowledge-creating company: how Japanese companies create the dynamics of innovation: Oxford university press; 1995.
- Office of the Public Sector Development Commission [OPDC]. Practitioner's issue of knowledge management. 2nd ed. Bangkok: OPDC; 2001.
- Office of the Public Sector Development Commission [OPDC], Thailand Productivity Institute. Guide to knowledge management. Bangkok: OPDC and Thailand Productivity Institute; 2001.
- Office of the Public Sector Development Commission [OPDC], Thailand Productivity Institute. Handbook of knowledge management planning. Nonthaburi: OPDC and Thailand Productivity Institute; 2005. [Cited 2014 Oct]. Available from: http://www.opdc.go.th/oldweb/thai/frame_kpi_49/handbook_2549.doc
- Davis FD. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*. 1989; 13(3): 319-40.
- Rovinelli RJ, Hambleton RK. On the use of content specialists in the assessment of criterion-referenced test item validity. *Tijdschrift voor Onderwijsresearch*. 1977; 2(2): 49-60.
- Cabrera Á, Collins WC, Salgado JF. Determinants of individual engagement in knowledge sharing. *The International Journal of Human Resource Management*. 2006; 17(2): 245-64.
- Kleingeld A, van Mierlo H, Arends L. The effect of goal setting on group performance: a meta-analysis. *J Appl Psychol*. 2011; 96(6): 1289-304.
- Zellmer-Bruhn ME. Interruptive events and team knowledge acquisition. *Management Science*. 2003; 49(4): 514-28.
- DeWitt J, Storksdieck M. A Short review of school field trips: key findings from the past and implications for the future. *Visitor Studies*. 2008; 11(2): 181-97.
- Gratton L, Erickson TJ. Eight ways to build collaborative teams. *Harv Bus Rev*. 2007; 85(11): 100-9, 153.
- Curran VR, Sharpe D, Forristall J, Flynn K. Student satisfaction and perceptions of small group process in case-based interprofessional learning. *Med Teach*. 2008; 30(4): 431-3.
- Farmer AD, Bruckner Holt CE, Cook MJ, Hearing SD. Social networking sites: a novel portal for communication. *Postgrad Med J*. 2009; 85(1007): 455-9.
- Boonchutima S, Tang S. Social media and political participation in Thailand. In: Lars Wilnat AA, editor. *Social media, culture and politics in Asia (Frontiers in Political Communication)*. [S.l.]: Peter Lang; 2014. p. 189-211.
- Nattestad A. Knowledge management systems for oral health in developing and developed countries. *Periodontol 2000*. 2012; 60(1): 156-61.
- Abidi SS, Hussini S, Sriraj W, Thienthong S, Finley GA. Knowledge sharing for pediatric pain management via a Web 2.0 framework. *Stud Health Technol Inform*. 2009; 150: 287-91.

27. Taminiau Y, Smit W, de Lange A. Innovation in management consulting firms through informal knowledge sharing. *Journal of Knowledge Management*. 2009; 13(1): 42-55.
28. Frankford DM, Patterson MA, Konrad TR. Transforming practice organizations to foster lifelong learning and commitment to medical professionalism. *Acad Med*. 2000; 75(7): 708-17.
29. Abrams LC, Cross R, Lesser E, Levin DZ. Nurturing interpersonal trust in knowledge-sharing networks. *The Academy of Management Executive*. 2003; 17(4): 64-77.
30. Chow WS, Chan LS. Social network, social trust and shared goals in organizational knowledge sharing. *Information & Management*. 2008; 45(7): 458-65.
31. Hsu M-H, Ju TL, Yen C-H, Chang C-M. Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations. *International Journal of Human-Computer Studies*. 2007; 65(2): 153-69.